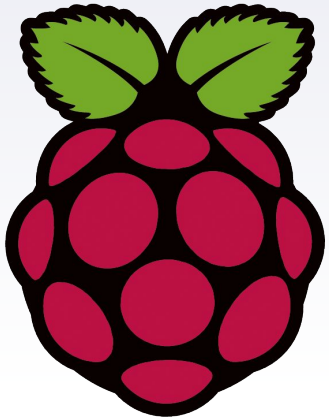
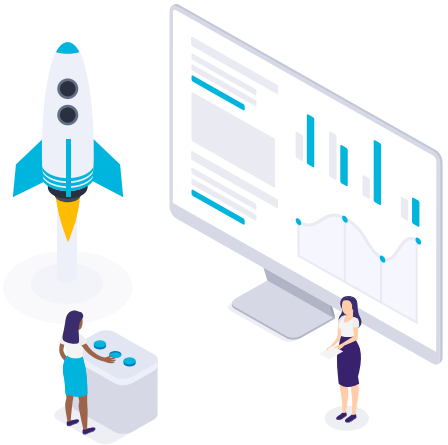
Kamadgiri Software Solutions (P) LTD.



Raspberry Pi



HELLO!

I am Shubham Mishra

Software Engineer

I am here because I love to share technical knowledge.


Everybody has a
dream to program
their own computer


But most of them failed to do it....☹

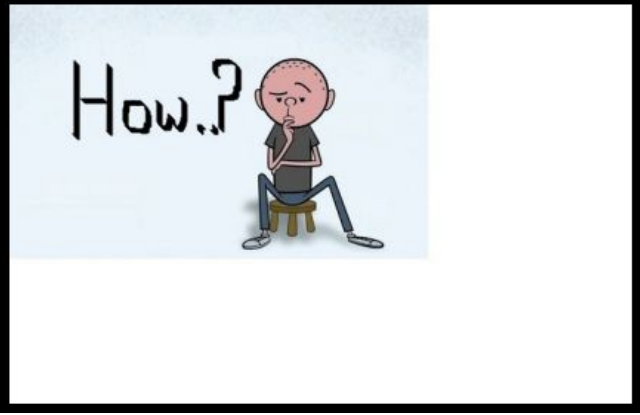
PROBLEMS:-

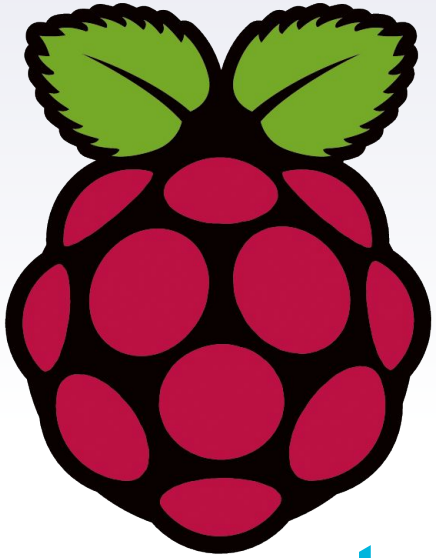
1. Not much idea on what is inside the CPU

2. Not much knowledge in practical programming

3. Scared to play with the H/W because of the expensive components inside the CPU

But still they have a chance to
get their dream come into action



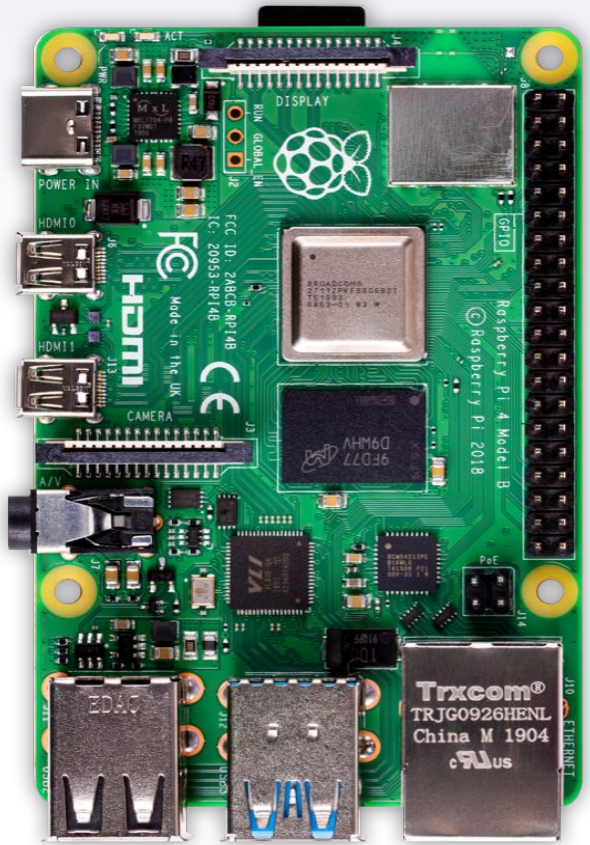


I was created
to create.

Raspberry Pi

Introduction

- The Raspberry Pi is a credit-card sized computer.
- Its is a fully featured micro-computer squashed onto a circuit board.
- Measuring approximately 9cm x 5.5cm.
- It can be plugged into your TV and a keyboard, and can be used for many of the things that your average desktop does spreadsheets, word-processing, games and it also plays high definition video.



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A picture is worth a thousand words

Raspberry Pi 4

Your tiny, dual-display, desktop PC replacement.

History

- The Raspberry Pi is the work of the Raspberry Pi Foundation, a charitable organisation.
- Raspberry Pi is UK registered charity (No. 1129409).
- Raspberry Pi is developed in May 2009
- It's supported by the University of Cambridge Computer Laboratory and tech firm Broadcomm.

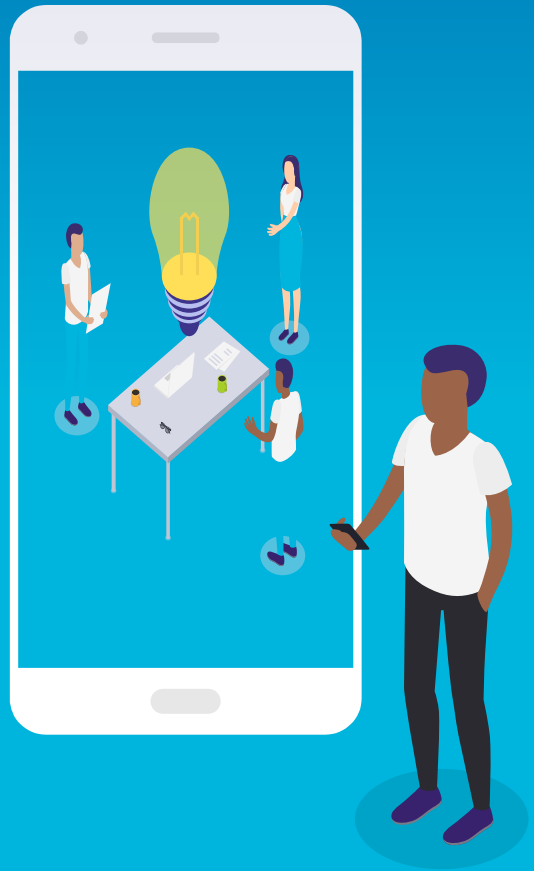
Features

- Inexpensive, simple, open and easy to maintain computer for schools.
- Ultra low-cost (Model A $25, Model B $35)
- Ultra low-power ~1W
- Credit-card sized, fanless, instant start-up
- Complete easy-to-program computer
- Provide a fun environment for experimenting with
- programming and electronics
- Fun computer for children to experiment with at home

(programming, robotics, etc...)

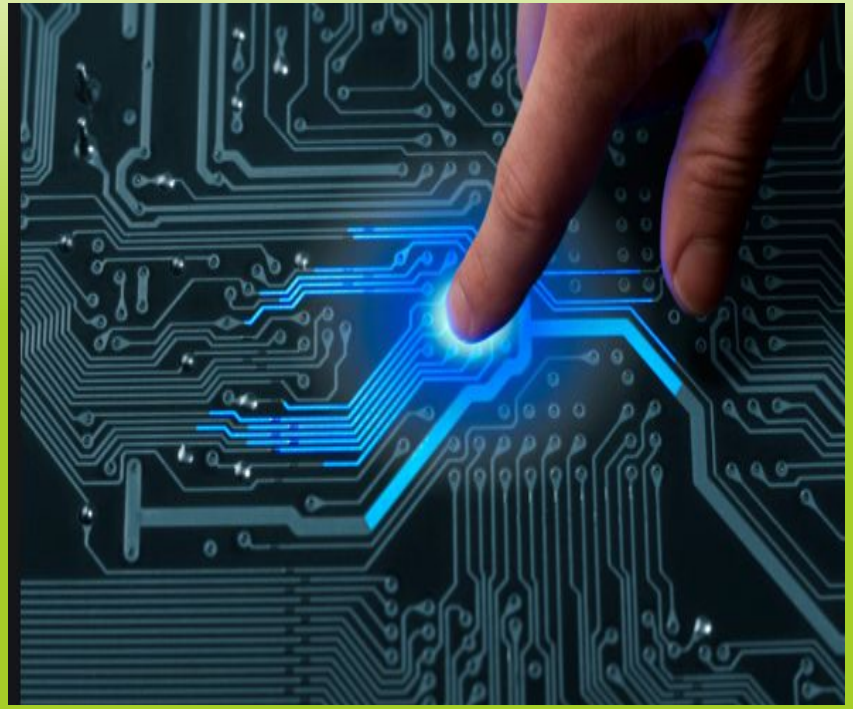
Technology

- The Raspberry Pi has a Broadcom BCM2835 system on a chip, which includes an ARM1176JZF-S 700 MHz processor.
- Video Core IV GPU.
- Originally shipped with 256 megabytes of RAM, later upgraded to 4 GB.
- It does not include a built-in hard disk , but uses an SD card for booting and long-term storage.



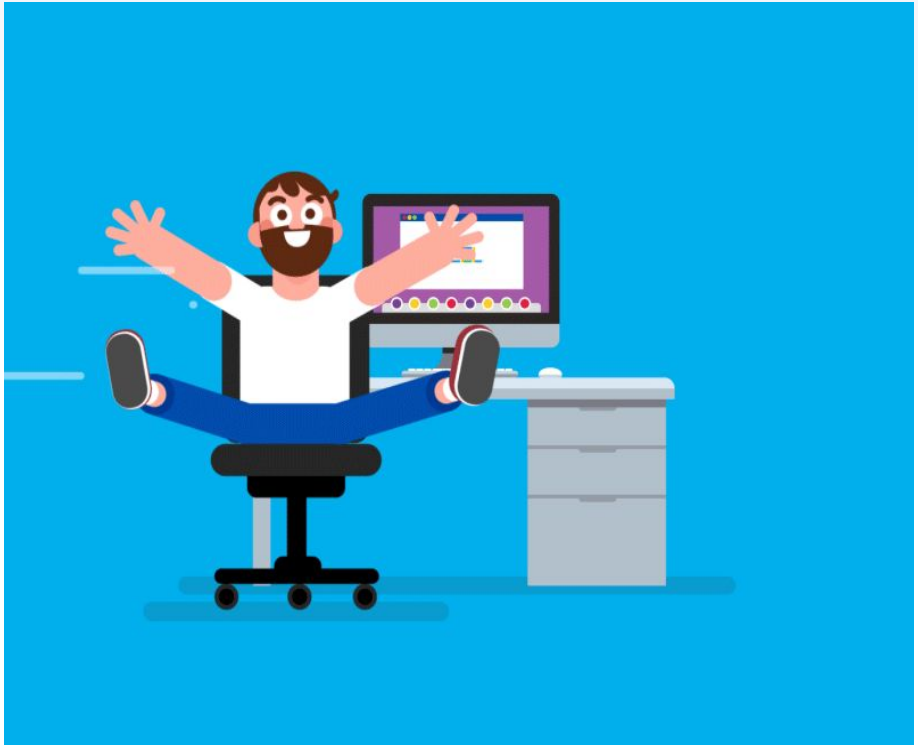
Hardware

- ARM CPU/GPU
- GPIO RCA
- Audio out
- LEDs
- USB
- HDMI
- Power
- SD Cardslot
- Ethernet
- Wifi
- Bluetooth

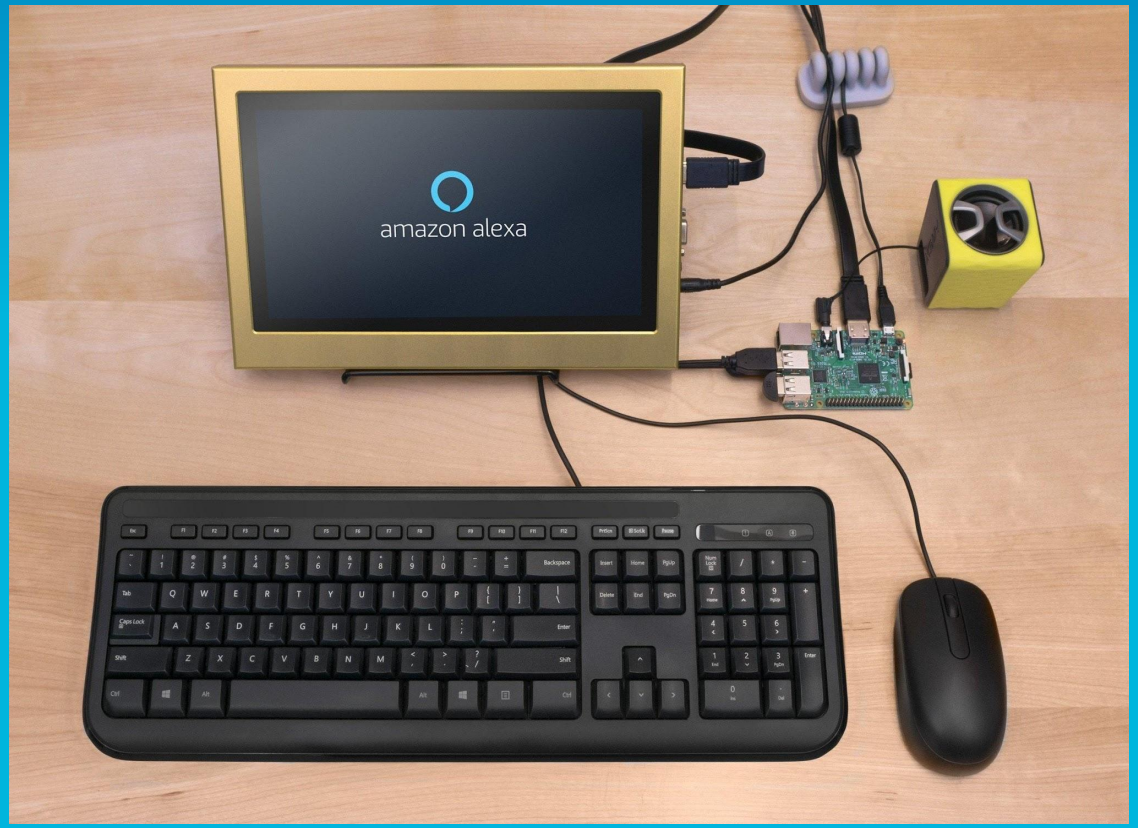


OS for Raspberry Pi

- Fedora
- Raspbian
- Debian
- ArchLinux ARM
- Lubantu
- Ubuntu MATE
- OSMC.
- Windows IoT Core
- RISC OS



How it works



Disadvantages

- It does not have a Hard Disk associated with it for permanent storage pf files, we have to connect one externally or have to use SD card for the purpose.
- The RAM is a POP package on top of the SoC, so it’s not removable or swappable.
- There is no Real time clock associated with the board.
- Adding an All peripheral devices is expensive.
- Slow Process.

THANKS!

Any questions?

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